



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

| | |
|----------------------------|---|
| Material name | TERRAGREEN ZF ENVIRONMENTAL FINISH |
| Product number | 361001 / 361051 |
| Revision date | 23-Jul-2007 |
| Company information | Brulin & Company, Inc. P.O. Box 270 Indianapolis, IN 46206 US www.Brulin.com |
| Emergency | CHEMTREC 1-800-424-9300 |
| General information | Phone: 317-923-3211 Fax: 317-925-4596 |

2. Hazards Identification

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| Emergency overview | Harmful in contact with eyes. Vapors may cause drowsiness and dizziness. This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Prolonged exposure may cause chronic effects. |
| Potential short term health effects | |
| Eyes | Health injuries are not known or expected under normal use. Contact with eyes may cause irritation. Avoid contact with eyes. |
| Skin | Health injuries are not known or expected under normal use. |
| Inhalation | Health injuries are not known or expected under normal use. Prolonged inhalation may be harmful. |
| Ingestion | Health injuries are not known or expected under normal use. May be harmful if swallowed. |
| Potential environmental effects | This material is not expected to be harmful to aquatic life. |

3. Composition / Information on Ingredients

| Hazardous component(s) | CAS # | Percent |
|------------------------------------|--------------|----------------|
| Ethanol,2-(2-ethoxyethoxy) | 111-90-0 | < 2.5 |
| Propanol, (2-Methoxymethylethoxy)- | 34590-94-8 | < 2.5 |
| 2-Butoxy-ethanol Phosphate | 78-51-3 | < 10 |

4. First Aid Measures

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|-----------------------------|---|
| First aid procedures | |
| Eye contact | Immediately flush eyes with plenty of water for at least 20 minutes. Get medical attention if irritation develops or persists. |
| Skin contact | Wash off with soap and water. Get medical attention if irritation develops or persists. |
| Inhalation | Move to fresh air. Call a physician if symptoms develop or persist. |
| Ingestion | Drink water as a precaution. Have victim rinse mouth thoroughly with water. Do not induce vomiting without medical advice. If ingestion of a large amount does occur, seek medical attention. |
| General advice | Call a physician if symptoms develop or persist. If you feel unwell, seek medical advice (show the label where possible). |

5. Fire Fighting Measures

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|-------------------------------------|---------------------------------------|
| Flammable properties | None known. |
| Extinguishing media | |
| Suitable extinguishing media | Use methods for the surrounding fire. |

6. Accidental Release Measures

| | |
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| Personal precautions | Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unnecessary personnel away. |
| Methods for containment | Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Prevent entry into waterways, sewers, basements or confined areas. |
| Methods for cleaning up | Never return spills in original containers for re-use. Large Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Dike far ahead of liquid spill for later disposal. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean contaminated surface thoroughly. |

7. Handling and Storage

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| Handling | Handle and open container with care. Avoid contact with eyes. |
| Storage | Keep in a well-ventilated place. Keep at temperatures between 4 and 43°C. Keep out of the reach of children. |

8. Exposure Controls / Personal Protection

Exposure guidelines

ACGIH - Threshold Limits Values - Short Term Exposure Limits (TLV-STEL)

| | | |
|---------------------------------------|------------|--------------|
| Propanol, (2-Methoxymethylethoxy)- | 34590-94-8 | 150 Ppm STEL |
|---------------------------------------|------------|--------------|

ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)

| | | |
|---------------------------------------|------------|-------------|
| Propanol, (2-Methoxymethylethoxy)- | 34590-94-8 | 100 Ppm TWA |
|---------------------------------------|------------|-------------|

ACGIH - Threshold Limits Values - TLV Basis - Critical Effects

| | | |
|---------------------------------------|------------|--|
| Propanol, (2-Methoxymethylethoxy)- | 34590-94-8 | CNS impairment; eye and upper respiratory tract irritation |
|---------------------------------------|------------|--|

OSHA - Final PELs - Skin Notations

| | | |
|---------------------------------------|------------|-----------------------------------|
| Propanol, (2-Methoxymethylethoxy)- | 34590-94-8 | prevent or reduce skin absorption |
|---------------------------------------|------------|-----------------------------------|

OSHA - Final PELs - Time Weighted Averages (TWAs)

| | | |
|---------------------------------------|------------|----------------------------|
| Propanol, (2-Methoxymethylethoxy)- | 34590-94-8 | 100 Ppm TWA; 600 mg/m3 TWA |
|---------------------------------------|------------|----------------------------|

| | |
|---------------------------------------|--|
| Engineering controls | Use general ventilation. |
| Personal protective equipment | |
| Eye / face protection | Wear chemical goggles. Avoid contact with eyes. |
| Skin protection | Not normally needed. Wear impervious gloves for prolonged contact. |
| Respiratory protection | No personal respiratory protective equipment normally required. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. |
| General hygiene considerations | Handle in accordance with good industrial hygiene and safety practice. |

9. Physical & Chemical Properties

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|---|---------------|
| Appearance | Not available |
| Color | Opaque white |
| Form | Liquid. |
| Odor | mild acrylic |
| Odor threshold | Not available |
| pH | 8 |
| Freezing point | Not available |
| Boiling point | Not available |
| Flash point | > 200 °F |
| Flammability limits in air, lower, % by volume | Not available |

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|--|---------------|
| Flammability limits in air, upper, % by volume | Not available |
| Vapor pressure | Not available |
| Vapor density | Not available |
| Specific gravity | 1.031 |
| Solubility (H ₂ O) | Not available |
| VOC (Weight %) | 4.55 % |

10. Chemical Stability & Reactivity Information

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|------------------------------------|------------------------------|
| Chemical stability | Stable at normal conditions. |
| Conditions to avoid | Do not freeze. |
| Incompatible materials | None known. |
| Possibility of hazardous reactions | Will not occur. |

11. Toxicological Information

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|---------------------|---|
| Acute effects | Acute LD50: 38629 mg/kg, Rat, Oral |
| Local effects | Eye irritation |
| Chronic effects | Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged exposure may cause chronic effects. |
| Further information | Symptoms may be delayed. |

12. Ecological Information

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| Ecotoxicity | Components of this product have been identified as having potential environmental concerns. This material is not expected to be harmful to aquatic life. |
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13. Disposal Considerations

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| Disposal instructions | Dispose in accordance with all applicable regulations. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. |
|-----------------------|--|

14. Transport Information

Department of Transportation (DOT) Requirements

Not regulated as dangerous goods.

Department of Transportation (DOT) Requirements NON-BULK

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA - Section 313 - Emission Reporting

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|------------------------------------|------------|--|
| Ethanol,2-(2-ethoxyethoxy) | 111-90-0 | 1.0 Percent de minimis concentration (applies to R-(OCH ₂ CH ₂) _n -OR' ethers, where n = 1,2, or 3, R=alkyl C7 or less or R = phenyl or alkyl subst. phenyl, R' = H or alkyl C7 or less, or OR' consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or |
| Propanol, (2-Methoxymethylethoxy)- | 34590-94-8 | 1.0 Percent de minimis concentration (applies to R-(OCH ₂ CH ₂) _n -OR' ethers, where n = 1,2, or 3, R=alkyl C7 or less or R = phenyl or alkyl subst. phenyl, R' = H or alkyl C7 or less, or OR' consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or |

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Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

International regulations

The product is classified and labelled in accordance with EC directives or respective national laws.

State regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other Information

HMIS rating

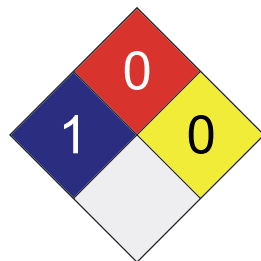
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Physical Hazard 0

Personal Protection A

NFPA codes



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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.